Claims

What is claimed is:

1. A fiber optic transceiver array for implementing testing comprising:

a plurality of sequential fiber optic transceiver channels; each fiber optic transceiver channel including a photodetector and having a predefined channel width; said photodetector of each sequential fiber optic transceiver channel being spaced apart substantially equal to said predefined channel width;

a plurality of test pads included in each fiber optic transceiver channel; and

a plurality of power pads; a pair of said power pads included in each fiber optic transceiver channel.

2. A fiber optic transceiver array for implementing testing as recited in claim 1 wherein said plurality of test pads included in each fiber optic transceiver channel includes a ground test pad and a pair of differential channel output test pads.

3. A fiber optic transceiver array for implementing testing as recited in claim 2 wherein said ground test pad is spaced apart by said pair of differential channel output test pads of each sequential fiber optic transceiver channel from said ground test pad of a next sequential fiber optic transceiver channel.

4. A fiber optic transceiver array for implementing testing as recited in claim 1 wherein said plurality of test pads included in each fiber optic transceiver channel includes a predefined sequence of test pads; said predefined sequence including a ground and a pair of differential channel outputs.

5. A fiber optic transceiver array for implementing testing as recited in claim 1 wherein said predefined channel width and said spacing between adjacent photodetectors is substantially equal to a predetermined spacing between fibers in a standard fiber optic cable.

6. A fiber optic transceiver array for implementing testing as recited in claim 1 wherein said plurality of test pads included in each fiber optic transceiver channel includes a ground test pad and a pair of differential channel output test pads and wherein one channel of said plurality of sequential fiber optic transceiver channels is tested using said ground test pad and said pair of differential channel output test pads of said one channel being tested and said ground test pad of a next sequential fiber optic transceiver channel.

7. A fiber optic transceiver array for implementing testing as recited in claim 6 include a ground test pad positioned proximate said pair of differential channel output test pads of a last channel of sequential fiber optic transceiver channels; said ground test pad used for testing said last channel of sequential fiber optic transceiver channels.

8. A fiber optic transceiver array for implementing testing as recited in claim 6 wherein said pair of power pads included in said one channel being tested and said pair of power pads included in at least one adjacent sequential fiber optic transceiver channel are used for supplying power to said one channel being tested.

9. A fiber optic transceiver array for implementing testing as recited in claim 1 wherein said predefined channel width and said spacing between adjacent photodetectors is equal to approximately 250 μm.

10. A fiber optic transceiver array for implementing testing as recited in claim 1 wherein spacing between said pair of differential channel output test pads is minimized.

11. A fiber optic transceiver array for implementing testing comprising:

a plurality of sequential fiber optic transceiver channels; each fiber optic transceiver channel including a photodetector and having a predefined channel width; said photodetector of each sequential fiber optic transceiver channel being spaced apart substantially equal to said predefined channel width;

a plurality of sequential test pads for test signal probing included within said predefined channel width of each fiber optic transceiver channel; said sequential test pads including a ground test pad and a pair of differential output test pads; and

a plurality of power pads for supplying power for testing; a pair of power pads included within said predefined channel width of each fiber optic transceiver channel.

12. A fiber optic transceiver array for implementing testing as recited in claim 11 wherein said predefined channel width is equal to approximately 250 μm.

13. A fiber optic transceiver array for implementing testing as recited in claim 11 wherein serial testing of each of said plurality of sequential fiber optic transceiver channels is performed; and wherein one channel of said plurality of sequential fiber optic transceiver channels is tested using said ground test pad and said pair of differential channel output test pads of said one channel being tested and said ground test pad of a next sequential fiber optic transceiver channel.

14. A fiber optic transceiver array for implementing testing as recited in claim 13 include a ground test pad positioned proximate to said pair of differential channel output test pads of a last channel of sequential fiber optic transceiver channels; said ground test pad used for testing said last channel of sequential fiber optic transceiver channels.

15. A fiber optic transceiver array for implementing testing as recited in claim 13 wherein said pair of power pads included in said one channel being tested and said pair of power pads included in at least one adjacent sequential fiber optic transceiver channel are used for supplying power to said one channel being tested.

16. A fiber optic transceiver array for implementing testing as recited in claim 11 wherein spacing between said pair of differential channel output test pads is minimized.

17. A method for implementing testing of a fiber optic transceiver array, the fiber optic transceiver array including a plurality of sequential fiber optic transceiver channels; each fiber optic transceiver channel including a photodetector and having a predefined channel width; said photodetector of each sequential fiber optic transceiver channel spaced apart substantially equal to said predefined channel width; each fiber optic transceiver channel including a plurality of sequential test pads and a pair of power pads disposed within said predefined channel width; said sequential test pads including a ground test pad and a pair of differential output test pads; said method comprising the steps of:

(a) projecting a light beam onto said photodetector of a first sequential fiber optic transceiver channel being tested;

(b) applying power probes to said pair of power pads included within said predefined channel width of said first fiber optic transceiver channel being tested and to at least one adjacent pair of power pads;

(c) applying test signal probes to a first four sequential test pads including said ground test pad and said pair of differential output test pads of said first fiber optic transceiver channel being tested and to said ground test pad of a next sequential fiber optic transceiver channel;

(d) moving said light beam, said power probes, and said test signal probes substantially equal to said predefined channel width and repeating steps a, b, and c, to test each sequential fiber optic transceiver channel.

18. A method for implementing testing of a fiber optic transceiver array as recited in claim 17 wherein the step of: (b) applying power probes to said pair of power pads included within said predefined channel width of said first fiber optic transceiver channel being tested and to at least one adjacent pair of power pads includes the step of:

(b) applying power probes to said pair of power pads included within said predefined channel width of said first fiber optic transceiver channel being tested and to two adjacent pairs of power pads.

19. A method for implementing testing of a fiber optic transceiver array as recited in claim 17 wherein the step of: (d) moving said light beam, said power probes, and said test signal probes substantially equal to said predefined channel width includes the step of:

(d) moving said light beam, said power probes, and said test signal probes substantially equal to a predetermined spacing between fibers in a standard fiber optic cable.